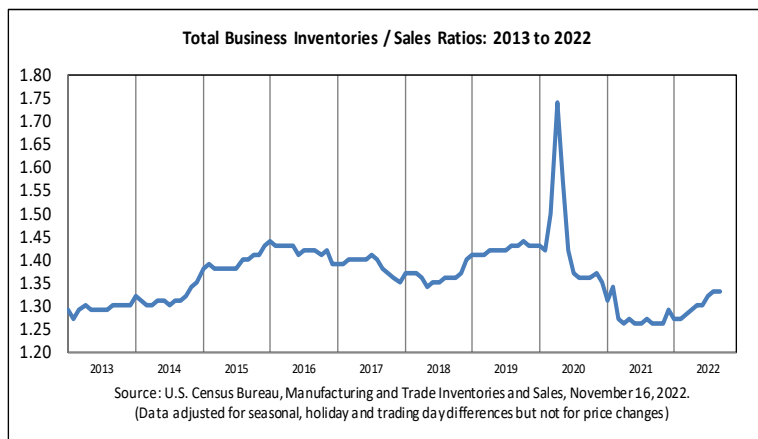


## MANUFACTURING AND TRADE INVENTORIES AND SALES, SEPTEMBER 2022

Release Number: CB22-185

**November 16, 2022** — The U.S. Census Bureau announced the following new manufacturing and trade statistics for September 2022:

 <b>BUSINESS INVENTORIES</b>		
<b>SEPTEMBER 2022</b>	<b>\$2,464.4 billion</b>	<b>+0.4%</b>
<b>AUGUST 2022 (revised)</b>	<b>\$2,455.0 billion</b>	<b>+0.9%</b>
<b>Next release: December 15, 2022</b>		
* The 90 percent confidence interval includes zero. There is insufficient evidence to conclude that the actual change is different from zero. Data adjusted for seasonality but not price changes. Source: U.S. Census Bureau, Manufacturing and Trade Inventories and Sales, November 16, 2022.		



### Sales

The combined value of distributive trade sales and manufacturers' shipments for September, adjusted for seasonal and trading day differences but not for price changes, was estimated at \$1,847.9 billion, up 0.2 percent ( $\pm 0.2$  percent)\* from August 2022 and was up 11.5 percent ( $\pm 0.2$  percent) from September 2021.

### Inventories

Manufacturers' and trade inventories for September, adjusted for seasonal and trading day differences but not for price changes, were estimated at an end-of-month level of \$2,464.4 billion, up 0.4 percent ( $\pm 0.1$  percent) from August 2022 and were up 17.8 percent ( $\pm 0.4$  percent) from September 2021.

### Inventories/Sales Ratio

The total business inventories/sales ratio based on seasonally adjusted data at the end of September was 1.33. The September 2021 ratio was 1.26.

### General Information

The October 2022 Manufacturing and Trade Inventories and Sales Report is scheduled for release on December 15, 2022. View the full schedule in the Economic Briefing Room:

[www.census.gov/economic-indicators/](http://www.census.gov/economic-indicators/).

### Statement Regarding COVID-19 Impact

The Census Bureau continues to monitor response and data quality and has determined that estimates in this release meet publication standards. For more information, see [COVID-19 FAQ](#).

#### Data Inquiries

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## Statement Regarding Natural Disasters

For information on the impact of natural disasters on the compilation of this report, please see

<[www.census.gov/wholesale/natural\\_disaster\\_faqs.html](http://www.census.gov/wholesale/natural_disaster_faqs.html)> and

<[www.census.gov/retail/mrts\\_weather\\_faqs.html](http://www.census.gov/retail/mrts_weather_faqs.html)>.

## EXPLANATORY NOTES

### Reliability of Estimates

The sampling variability for retailers and merchant wholesalers can be used to construct a 90 percent confidence interval for the estimates. Over all possible samples, 90 percent of such intervals will cover the true estimate. These intervals are given in parentheses for the estimates on the front page. If, for example, the estimate is up 0.8 percent and the margin of sampling error is  $\pm 1.2$  percent, the 90 percent confidence interval is -0.4 percent to +2.0 percent. If the range contains 0, it is uncertain whether there was an increase or decrease. Measures of reliability for Retail and Wholesale sales and inventory levels and changes are included in the detailed monthly press releases for those Industries. Manufacturers do not contribute to estimates of sampling variability because the manufacturer's mail panel is not a probability sample from a known frame and standard errors of the industry estimates cannot be calculated. Estimates from all three surveys are also subject to nonsampling errors, which can arise in any stage of the survey. Such errors include coverage error (failure to accurately represent all population units in the sample) response errors, coding errors, and nonresponse. Although no direct measurement of these errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data to minimize their influence.

### Description of the Survey

The Manufacturing and Trade Inventories and Sales estimates are based on data from three surveys: the Monthly Retail Trade Survey, the Monthly Wholesale Trade Survey, and the Manufacturers' Shipments, Inventories, and Orders Survey. Data for the wholesale and manufacturing sectors are unrevised from the most recent Monthly Wholesale Trade Report and the Full Report on Manufacturers' Shipments, Inventories and orders. Data from the Retail sector is revised and presented in more detail from the most recent Advance Economic Indicators Report. For more information on these surveys see the links below:

<[www.census.gov/retail/](http://www.census.gov/retail/)>, <[www.census.gov/wholesale/](http://www.census.gov/wholesale/)>, and <[www.census.gov/manufacturing/m3/](http://www.census.gov/manufacturing/m3/)>.

## RESOURCES

### API

The Census Bureau's application programming interface lets developers create custom apps to reach new users and makes key statistics more accessible than ever before. <[www.census.gov/developers/](http://www.census.gov/developers/)>

### FRED Mobile App



ECONOMIC DATA | ST. LOUIS FED

Receive the latest updates on the nation's key economic indicators by downloading the FRED App <<https://fred.stlouisfed.org/fred-mobile/>> for both Apple and Android

#### Data Inquiries

Economic Indicators Division

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devices. FRED, the signature database of the Federal Reserve Bank of St. Louis, now incorporates the Census Bureau's 13 economic indicators.

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\* The 90 percent confidence interval includes zero. There is insufficient evidence to conclude that the actual change is different from zero.

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Table 1. Estimated Monthly Sales and Inventories for Manufacturers, Retailers, and Merchant Wholesalers

(In millions of dollars)

	Sales			Inventories			Inventories/Sales Ratios		
	Sep. 2022	Aug. 2022	Sep. 2021	Sep. 2022	Aug. 2022	Sep. 2021	Sep. 2022	Aug. 2022	Sep. 2021
	(p)	(r)	(r)	(p)	(r)	(r)	(p)	(r)	(r)
Adjusted <sup>1</sup>									
Total business.....	1,847,939	1,844,829	1,657,284	2,464,403	2,455,035	2,092,460	1.33	1.33	1.26
Manufacturers <sup>2</sup> .....	550,270	549,197	492,160	801,626	800,301	743,493	1.46	1.46	1.51
Retailers <sup>3</sup> .....	597,720	598,380	553,275	744,271	741,260	608,895	1.25	1.24	1.10
Merchant wholesalers <sup>4</sup> .....	699,949	697,252	611,849	918,506	913,474	740,072	1.31	1.31	1.21
Not Adjusted									
Total business.....	1,850,596	1,906,252	1,662,284	2,458,736	2,428,559	2,086,694	1.33	1.27	1.26
Manufacturers <sup>2</sup> .....	567,384	570,039	508,666	799,658	803,059	742,032	1.41	1.41	1.46
Retailers <sup>3</sup> .....	576,853	613,416	532,840	748,248	726,846	612,261	1.30	1.18	1.15
Merchant wholesalers <sup>4</sup> .....	706,359	722,797	620,778	910,830	898,654	732,401	1.29	1.24	1.18

(p) Preliminary estimate.

(r) Revised estimate.

Data adjusted for seasonality and trading day differences, but not for price changes. Explanations of confidence intervals and sampling variability can be found on our website at <[www.census.gov/mtis/how\\_surveys\\_are\\_collected.html](http://www.census.gov/mtis/how_surveys_are_collected.html)>.

Source: U.S. Census Bureau, Manufacturing and Trade Inventories and Sales, November 16, 2022.

Table 2. Percent Changes for Sales and Inventories -- Manufacturers, Retailers, and Merchant Wholesalers

	Adjusted						Not Adjusted					
	Sales			Inventories			Sales			Inventories		
	Sep. 22/ Aug. 22	Aug. 22/ Jul. 22	Sep. 22/ Sep. 21	Sep. 22/ Aug. 22	Aug. 22/ Jul. 22	Sep. 22/ Sep. 21	Sep. 22/ Aug. 22	Aug. 22/ Jul. 22	Sep. 22/ Sep. 21	Sep. 22/ Aug. 22	Aug. 22/ Jul. 22	Sep. 22/ Sep. 21
Total business.....	0.2	0.3	11.5	0.4	0.9	17.8	-2.9	6.3	11.3	1.2	0.7	17.8
Manufacturers <sup>2</sup> .....	0.2	0.7	11.8	0.2	-0.1	7.8	-0.5	9.0	11.5	-0.4	-0.5	7.8
Retailers <sup>3</sup> .....	-0.1	0.4	8.0	0.4	1.4	22.2	-6.0	2.1	8.3	2.9	1.9	22.2
Merchant wholesalers <sup>4</sup> .....	0.4	0.0	14.4	0.6	1.4	24.1	-2.3	7.9	13.8	1.4	0.9	24.4

See footnotes and notes at the end of Table 3.

Data adjusted for seasonality and trading day differences, but not for price changes. Explanations of confidence intervals and sampling variability can be found on our website at <[www.census.gov/mtis/how\\_surveys\\_are\\_collected.html](http://www.census.gov/mtis/how_surveys_are_collected.html)>.

Source: U.S. Census Bureau, Manufacturing and Trade Inventories and Sales, November 16, 2022.

Table 3. Estimated Monthly Retail Sales, Inventories, and Inventories/Sales Ratios, By Kind of Business

(In millions of dollars)

NAICS Code	Kind of Business	Sales			Inventories <sup>3</sup>			Percent Change In Inventories			Inventories/Sales Ratios		
		Sep. 2022	Aug. 2022	Sep. 2021	Sep. 2022	Aug. 2022	Sep. 2021	Sep. 22/ Aug. 22	Aug. 22/ Jul. 22	Sep. 22/ Sep. 21	Sep. 22	Aug. 22	Sep. 21
		(p)	(r)	(r)	(p)	(r)	(r)				(p)	(r)	(r)
	Adjusted <sup>1</sup>												
	Retail trade, total.....	597,720	598,380	553,275	744,271	741,260	608,895	0.4	1.4	22.2	1.25	1.24	1.10
	Total (excl. motor veh. & parts).....	469,956	470,231	432,183	551,251	551,906	460,350	-0.1	0.7	19.7	1.17	1.17	1.07
441	Motor vehicle & parts dealers.....	127,764	128,149	121,092	193,020	189,354	148,545	1.9	3.6	29.9	1.51	1.48	1.23
442,3	Furniture,home furn., elect. & appl. stores.....	19,370	19,474	20,043	31,484	32,261	27,461	-2.4	-1.3	14.6	1.63	1.66	1.37
444	Building materials, garden equip & supplies.....	43,246	43,314	39,261	83,604	83,084	69,905	0.6	1.0	19.6	1.93	1.92	1.78
445	Food & beverage stores.....	79,888	79,317	74,695	62,097	62,100	55,196	0.0	1.7	12.5	0.78	0.78	0.74
448	Clothing & clothing access. stores.....	26,396	26,145	25,264	56,667	58,009	45,679	-2.3	1.3	24.1	2.15	2.22	1.81
452	General merchandise stores.....	70,107	69,558	67,541	108,166	109,469	86,300	-1.2	0.1	25.3	1.54	1.57	1.28
4521	Dept. strs. (excl. leased depts.).....	11,552	11,407	11,355	24,672	25,244	20,507	-2.3	1.0	20.3	2.14	2.21	1.81
	Not Adjusted												
	Retail trade, total.....	576,853	613,416	532,840	748,248	726,846	612,261	2.9	1.9	22.2	1.30	1.18	1.15
	Total (excl. motor veh. & parts).....	451,973	477,525	414,186	559,799	543,914	467,318	2.9	1.5	19.8	1.24	1.14	1.13
441	Motor vehicle & parts dealers.....	124,880	135,891	118,654	188,449	182,932	144,943	3.0	3.3	30.0	1.51	1.35	1.22
442,3	Furniture,home furn., elect. & appl. stores.....	18,966	19,758	19,522	32,366	32,067	28,148	0.9	-0.2	15.0	1.71	1.62	1.44
444	Building materials, garden equip & supplies.....	42,586	45,165	38,859	81,765	81,422	68,507	0.4	-0.7	19.4	1.92	1.80	1.76
445	Food & beverage stores.....	78,215	80,093	72,978	61,987	60,922	55,133	1.7	1.5	12.4	0.79	0.76	0.76
448	Clothing & clothing access. stores.....	23,941	26,376	22,592	58,877	57,951	47,460	1.6	2.5	24.1	2.46	2.20	2.10
452	General merchandise stores.....	66,088	69,704	62,955	113,833	107,272	90,692	6.1	2.9	25.5	1.72	1.54	1.44
4521	Dept. strs. (excl. leased depts.).....	10,417	11,552	10,223	26,498	24,058	22,004	10.1	2.7	20.4	2.54	2.08	2.15

(p) Preliminary estimate.

(r) Revised estimate.

<sup>1</sup> Adjusted for seasonal variations, trading day differences, and, in the case of sales, for holiday variations. Concurrent seasonal adjustment is being used to adjust all sales, shipment and inventory estimates. Concurrent seasonal adjustment uses all available unadjusted estimates as input to the X-13ARIMA-SEATS program. The factors derived from the program are applied to the current and previous month estimates and for retail and wholesale estimates a year ago as well. For retail sales, concurrent seasonal adjustment is also used to adjust the advance estimates (published one month before the preliminary estimates) and the estimates one year before the advance month. This explains the revision to retail estimates from a year ago.

<sup>2</sup> Manufacturers sales refer to the value of shipments by manufacturers. The shipments data from individual manufacturers are adjusted prior to tabulation for the number of trading days as well as for any variations in the length of the reporting period.

<sup>3</sup> Adjusted and not adjusted inventories for aggregate levels retail trade total, total excluding motor vehicles and parts, and motor vehicle and parts dealers are revised from the Advance Economic Indicators Report.

<sup>4</sup> The 2012 North American Industry Classification System (NAICS) defines merchant wholesalers as including manufacturers' sales branches and offices. However, the estimates included in this release exclude manufacturers' sales branches and offices. Note that this is not a change in coverage from prior releases and is consistent with the description used in the Monthly Wholesale Trade Survey data products. Data adjusted for seasonality and trading day differences, but not for price changes. Explanations of confidence intervals and sampling variability can be found on our website at <[www.census.gov/mtis/how\\_surveys\\_are\\_collected.html](http://www.census.gov/mtis/how_surveys_are_collected.html)>.

Source: U.S. Census Bureau, Manufacturing and Trade Inventories and Sales, November 16, 2022.